REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Final Office Action dated August 23, 2005 is respectfully requested. Claims 1-40 and 42-53 are currently pending. Claims 22, 30, 31, 37, 38, 40, 42-45, 52, and 53 have been allowed. Claims 1-21, 23-29, 32-36, 39, and 46-51 have been rejected.

Rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103

The Examiner has rejected claims 1-5, 7, 9, 10, 19-21, 23-25, 29, 32-34, 36-38, 46-49, and 51 under 35 U.S.C. § 102(e) as being anticipated by Francis et al. (U.S. Patent No. 6,580,720), herein after "Francis." The Examiner has rejected claims 6, 8, 11-18, 26-28, 35, 39, and 50 under 35 U.S.C. § 103(a) as being unpatentable over Francis.

1. Independent Claim 1 and its dependents

Independent claim 1 requires that an apparatus for maintaining a data circuit includes a plurality of interface cards, a cross-connect unit, a control unit, and a backplane. The cross-connect unit routes data streams received from a first set of interface cards to a second set of interface cards, and is based on an associated matrix which identifies the interface cards that will receive a data stream and the order in that the interface cards will receive the data stream.

In the Final Office Action dated August 23, 2005, the Examiner has argued that Francis discloses the system of claim 1. On pages 2, 3, and 8 of the Final Office Action dated August 23, 2005, the Examiner has stated that he is of the position that information about all possible paths is an associated matrix, and that when selects a lowest latency path that is available from an ordered list, Francis anticipates the apparatus of claim 1.

Claim 1 specifically requires that **an associated matrix identifies the interface cards that will receive a data stream**. Claim 1 also requires that **an associated matrix identifies an order that the interface cards will receive the data stream**. Hence, more than one interface

card will receive the data stream, and not only does the associated matrix identify the interface cards that will receive the data stream, the associated matrix also identifies an order in which the interface cards will receive the data stream.

It is respectfully submitted that Francis does not appear to disclose an associated matrix that identifies interface cards that will receive a data stream as well as an order that the interface cards will receive the data stream. The Examiner cites a passage at column 40, lines 54-56, of Francis as teaching such a limitation. That passage of Francis reads as follows:

> "....a controller that determines the latency of all possible signal paths that are presently available for each connection to be established, selects the lowest-latency signal path...."

It is noted that this passage does not disclose or suggest identifying interface cards that will receive a data stream. Further, a thorough reading of claim 1 of Francis (from which the above passage is extracted) seems to indicate that there are different signals, and that each signal is sent to one device. In particular, lines 41-53 of Francis reads as follows:

> "....a switching fabric that selectively delivers **each of a plurality of different signals** from a selected one of the I/O ports coupled to a sending one of the devices to another selected one of the I/O ports coupled to **a receiving one of the devices**, to thereby establish respective connections between the sending and receiving devices ... wherein the switching fabric provides a fixed, low latency signal path for each connection...." [emphasis added]

Francis specifically describes delivering each signal to a single receiving device, and does not teach or suggest identifying interface cards that will receive a data stream. As taught by Fisher, it appears that only one device may receive any given signal.

There appears to be no teaching or suggestion in Francis of a matrix identifying interface

cards that will receive a given data stream. The Examiner has argued, on page 3 of the Final Office Action dated August 23, 2005, that two receiving I/O ports are listed for receiving a data stream, and that each connection could have more than two signal paths. The Applicants are unable to find any support in Francis for such a limitation, and respectfully submit that Francis teaches of a single signal path for each device on which a signal is received. Therefore, claim 1 and its dependents are each believed to be allowable over Francis for at least this reason.

Claims 2-20 each depend either directly or indirectly from independent claim 1 and are, therefore, each believed to be allowable over the cited art for at least the reason set forth above with respect to claim 1. Each of these claims recites additional limitations which, when considered in the light of claim 1, are believed to further distinguish the claimed invention over the cited art.

2. *Independent Claim 21 and its dependents*

Independent claim 21 recites an apparatus which includes a plurality of interface cards and a database that contains a matrix for a data circuit. Each interface card in a set of interface cards is receiving a data stream. The matrix identifies the order that a data stream will be routed to a set of interface cards which define a data circuit. A cross-connect unit uses the matrix to determine how to route the data stream, and routes the data stream to a next destination point when an interface card associated with a destination point becomes inoperable. For each interface card, the matrix includes the destination point and the next destination point.

It is respectfully submitted that Francis fails to disclose that each interface card in a set of interface cards receives a data stream. Francis does not appear to teach of a set of receiving devices (interface cards) all receiving a data stream, as required by claim 21. Instead, Francis appears to disclose a plurality of data signals (streams) which are each received on a single device. As such, claim 21 is believed to be allowable for at least this reason.

3. Independents Claim 23, 32 and their dependents

Claim 23 recites a method for maintaining a data circuit which includes defining a data circuit as a plurality of interface cards that will receive a particular data stream, and generating a matrix that includes a destination point and a next destination point for each interface card based on the data circuit. The method also includes routing the data stream to appropriate interface cards.

Francis does not appear to teach routing a data stream to more than one card. The Applicants are unable to find any disclosure or suggestion of such a feature in Francis. Therefore, claim 23 and its dependents are each believed to be allowable over the art of record for at least this reason.

Claim 32 recites a computer program with code segments for performing the method of claim 23. Accordingly, claim 32 and its dependents are believed to be allowable over Francis for at least the reasons set forth above with respect to claim 23.

4. Independent Claims 29, 36, and 51

Claim 29 recites a method for flexibly routing a data stream that includes defining a data circuit as a plurality of interface cards receiving a data stream, and controlling the operation of a cross-connect unit with a matrix, the matrix identifying the order a data stream will be routed to the data circuit including a destination point and a next destination point for each interface card.

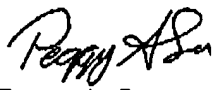
As discussed above, Francis does not appear to teach of a plurality of interface cards receiving a data stream, and instead teaches only of sending a signal to a single receiving device, and not a plurality of receiving devices. Francis also does not appear to teach of a matrix identifying the order a data stream will be routed that includes a destination point and a next destination point. Therefore, claim 29 is believed to be allowable over Francis for at least these reasons.

Claim 36 recites a computer program with code segments for performing the method of claim 29. Claim 51 recites an apparatus with means for performing the method of claim 29. Accordingly, claims 36 and 51 are believed to be allowable over Francis et al. for at least the reasons set forth above with respect to claim 29.

Conclusion

In view of the above, the Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,



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